

ABSTRACT

A loop interference canceller that carries out an adaptive operation of responding to time variations of the phase or level of loop interference wave or key station wave at high speed and with high accuracy and reduces the size of an apparatus. The loop interference canceller of the present invention limits the number of data pieces of the transmission path characteristic estimation section, realizes expansion to the entire band not through interpolation but through 0 insertion in a frequency domain and windowing after time domain transformation to reduce the number of data pieces processed and speed up the adaptive operation of the loop interference canceller, and can thereby realize high trackability for time variations of the phase and level of loop interference wave or key station wave, increase the accuracy of processing inside, perform high accuracy cancellation operation, reduce the circuit scale and achieve an advantageous effect of realizing miniaturization of the apparatus.